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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/571,198

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EXAMINER

KAYES, SEAN PHILLIP

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/571,198	Applicant(s) BARRAS ET AL.	
	Examiner SEAN KAYES	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-17, 19-26 and 28 is/are rejected.
- 7) ☒ Claim(s) 18 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 15-17, 19, 23, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koch (US 5798984) in view of Denninger (US 5502446).

With regard to claim 15 Koch discloses a portable electronic timepiece with a module 4. This timepiece comprises a case (2), crystal (12), movement (4), display (6-10 and 24), bezel 14, and antenna structure (17-20). As depicted in figure 3 the antenna element is at a non-zero angle relative to the dial 24. The bezel structure 34 retains a crystal 12. The bottom casing (2) likewise retains said crystal. The bezel and the casing cooperate to support the crystal and define the external surfaces of the case. Koch is silent with regard to the nature of the time movement, 4, so as to not explicitly state that it is electronic and therefor an electronic module.

Denninger teaches an electronic movement and antenna in electrical communication therewith. At the time of the invention it would have been obvious to one having ordinary skill in the art to configure Koch's device with an electric movement and antenna in electrical communication therewith. The reason for doing so would have been to configure the device to provide a real time clock function in combination with a GPS location determination as taught by Denninger.

3. With regard to claims 16 and 17 the Koch's bezel (14) is formed/attached adjacent an indentation of the bottom case (2). The indentation defines a recess whereby the crystal and the dial are received according to this ring structure of the bottom casing. The joining of these various parts defines a sealed connection.

4. With regard to claim 19 Koch's casing and ring element are formed as a common element. Being so formed, i.e. by welding, molding, machining, necessitates a fixing means constituting the method of formation or the structure itself.

5. With regard to claim 23 Koch teaches a protective cover (30 figure 2 column 3 lines 42-46).

6. With regard to claim 28 the bottom and lateral walls of Koch are formed of a single part.

7. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koch (US 5789984) and Denninger (US 5502446), in view of Megner (US 6411569.)

8. With respect to claims 20-21 Koch and Denninger teach the instrument according to claim 15. Koch does not disclose wherein said exterior body is made of metal material and wherein that said bezel element is made of plastic material.

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Megner teaches a watch with an antenna (28 figure 1.) Megner teaches forming a support structure of the antenna portion with plastic (column 3 lines 15-19) and forming the casing with metal (column 3 lines 55-58 and column 4 lines 32-48.)

At the time of the invention it would have been obvious to one skilled in the art to configure Koch's device such that the antenna supporting housing (the bezel) is made out of plastic and the outer casing is made out of metal, as taught by Megner.

The suggestion or motivation for doing so would be to select commonly used materials for the construction of the device, namely a resilient material for the casing and a non-conducting material for the antenna support, as taught by Megner.

9. With respect to claim 22 Koch and Denninger teach the instrument according to claim 20, further including an exterior element (14 figure 2) of essentially annular shape, fitted onto said bezel (30) element, this annular-shaped exterior element having an aperture inside in which said antenna (20 figure 2) is housed. Koch does not disclose the exterior element being made of a metal material.

Megner teaches forming an exterior portion of an antenna housing out of metal (column 2 lines 55-58.) Megner teaches that this structure can be utilized to screen out undesired interference (column 2 lines 59-63.)

At the time of the invention it would have been obvious to one skilled in the art to make exterior element (14 figure 2) out of a metal material, as taught by Megner.

The suggestion or motivation for doing so would be to controllably insulate the antenna as taught by Megner.

10. Claims 24 is rejected under 35 USC 103(a) as being unpatentable over Koch (US 5798984) in view of Yano (US 6249487) and Denninger (US 5502446).

Koch does not disclose wherein said antenna is a patch type antenna including a radiating element separated from a ground plane by a dielectric and electrically connected to said electronic module by a feed conductor, said ground plane resting on the outer face of said bezel element and being electrically connected to said electronic module by a ground conductor.

The use of patch antennas according to these claims is well known with regard to GPS technology. Yano teaches a GPS wristwatch with a GPS antenna located in the 12'oclock position and with an angle relative to the display which is neither 0 nor 90. Yano's antenna 23 figures 30a-b is depicted as a flat plate so as to be indicative of being a patch type antenna according to the claim limitations. Yano does not explicitly recite that 23 figures 30-ab is a patch antenna.

As previously stated patch antennas are well known antenna's used in GPS communication. Denninger teaches a patch type antenna 26 figure 5 located at a 12 o'clock position of a wrist worn device and appears to have an angle relative to the display means.

At the time of the invention it would have been obvious to one skilled in the art to configure Koch's device with a patch type antenna in the 12 o'clock position with an angle relative to the display which is neither 0 nor 90 degrees, as taught by Denniger and Yano. The reason for doing so would have been to enable GPS communication in

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the device as taught by Yano and Denniger. A reason for angling the antenna is to increase visibility of the display as taught by Yano (column 17 lines 4-9.)

11. Claims 25 is rejected under 35 USC 103(a) as being unpatentable over Koch (US 5798984) in view of Yano (US 6249487) and Denninger (US 5502446) in further view of Kalis (US 6215671.)

Koch does not disclose wherein said ground plane is formed of a stamped metal plate including at least one leg bent outside the ground plane and directly connecting said ground plane to said electronic module, said leg forming said antenna ground conductor.

The use of bent legs in a grounding plate to connect electronic means is well known in the art. Kalis teaches bent legs 42 and 46 figures 5-8 for electrically connecting a ground plate (28 figures 6-8.)

At the time of the invention it would have been obvious to one skilled in the art to connect the ground plate of Koch's device (as previously modified to have a ground plate of a patch antenna) to electrically connect the ground plate to the remaining electronic module by means of a bent leg of the ground plate, as taught by Kalis. The reason for doing so would have been to form an electrical connection means of the ground plate. Electrical connection of the ground plate establishes a common ground.

Claim Objections

12. Claims 18 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 12/29/2008 have been fully considered, but are not found to be persuasive.

Applicant's arguments pertain to the previous "module" designation of the rejection dated 9/30/08. In the current rejection the module is identified as the movement of the timepiece.

Applicant asserts that the interpretation of the Koch rejection set forth in the grounds of rejection fails to teach the full limitations of the claims. This argument is persuasive in so much as it applies to only the aforementioned interpretation. The Koch and Denninger references teach a case which encloses an electronic module, i.e. the movement in electrical communication with the antenna. Koch does teach a bezel that supports a crystal, figure 2. [See underlined portions section of applicant's argument page 7.]

Applicant asserts that the current invention overcomes any combination of Yano and Koch. This assertion is not persuasive. The claim is directed toward an unspecified electronic module. Accordingly, the functional relationship between the parts discussed by applicant has limited implications with regard to the currently recited claims. The current grounds of rejection discuss the electronic module as pertaining to the electronic movement of the device. If applicant intends the term "electronic module" to necessitate

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certain functional characteristics, such limitations must be positively recited by the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN KAYES whose telephone number is (571) 272-8931. The examiner can normally be reached on 11:00am to 9:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on (571) 272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vit W. Miska/
Primary Examiner, Art Unit 2833

SK
4/6/2009